Growing Rhombi

1. How many rhombus pattern blocks are needed to make each figure? Complete the table.

Figure 3

Figure 2

Figure 1

|  |  |
| --- | --- |
| Figure  Number | Number of  Pattern Blocks |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |

1. Using complete sentences, describe the patterns you see in the table.
2. How many rhombus pattern blocks would you need to make each figure below? Show your math work.

Figure 7 \_\_\_\_\_\_\_\_ Figure 10 \_\_\_\_\_\_\_\_ Figure 15 \_\_\_\_\_\_\_\_

1. When given any figure number, how can you find the number of rhombus pattern blocks needed to make that figure?
2. What if a figure has 26 pattern blocks? What is its figure number? \_\_\_\_\_\_\_\_

Explain how you found your solution.

1. Use the numbers in the chart from #1 and #3, as ordered pairs. Plot the points on the grid below. What pattern, if any, do the points make?
2. Continuing the pattern, plot the next point on your graph. Write this point as an ordered pair.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Could the ordered pair (12, 40) be a point on the graph? Explain why or why not.



50

100

20

30

40

Number of Rhombus Pattern Blocks

Figure Number

20

15

5

10

0